

## WHAT IS CLAIMED IS:

1. A catalogued nucleic acid library formed from an organism sample comprised of a plurality of organisms, formed by process comprising the steps of:
  - (a) forming a derived organism sample from an initial organism sample, such that the proportional representations of the constituents in said derived organism sample are adjusted to advantage by performing in any order, and at least one time, at least one step selected from the group consisting of: (i) subjecting a working organism sample to a process of selection, and (ii) recovering a fraction of a working organism sample having at least one desired characteristic;
  - (d) isolating an initial nucleic acid sample from said derived organism sample;
  - (e) forming a derived nucleic acid library from said initial nucleic acid sample, such that the proportional representations of the constituents in said nucleic acid library are adjusted to advantage by performing in any order, and at least one time, at least one step selected from the group consisting of: (i) subjecting a working nucleic acid sample to a period of selection, (ii) recovering a fraction of a working nucleic acid sample having at least one desired characteristic, and (iii) assembling a working nucleic acid sample into a nucleic acid library;whereby said nucleic acid library having advantageously adjusted proportional representations of the constituents and having an improved yield potential when said library is screened, is serviceable for identifying a potentially desirable nucleic acid target, particularly when said potentially desirable nucleic acid target is underrepresented an organism source sample, and particularly also when said potentially desirable nucleic acid target is underrepresented a nucleic acid source sample.
2. The catalogued nucleic acid library according to claim 1 wherein the step of (b) isolating a nucleic acid sample from said derived organism sample is comprised of isolating genomic DNA, and wherein the step of (c) forming a derived nucleic acid library from said initial nucleic acid sample is comprised of forming a genomic DNA library, such that a catalogued genomic DNA library is formed.

3. The catalogued nucleic acid library according to claim 1 wherein the step of (b) isolating a nucleic acid sample from said derived organism sample is comprised of isolating genomic gene cluster DNA, and wherein the step of (c) forming a derived nucleic acid library from said initial nucleic acid sample is comprised of forming a genomic gene cluster DNA library, such that a catalogued genomic gene cluster DNA library is formed.
4. The catalogued nucleic acid library according to claim 1 wherein the step of (b) isolating a nucleic acid sample from a derived organism sample is comprised of isolating RNA, and wherein the step of (c) forming a derived nucleic acid library from said initial nucleic acid sample is comprised of forming a cDNA library, such that a catalogued cDNA library is formed.